

CMMI STRATEGY

*"The inertia of the human mind and its resistance to innovation are most clearly demonstrated not, as one might expect, by the ignorant mass – which is easily swayed once its imagination is caught – but by professionals with a vested interest in tradition and in the monopoly of learning. Innovation is a twofold threat to academic mediocrity: it endangers their oracular authority, and it evokes the deeper fear that their whole, laboriously constructed intellectual edifice might collapse. The academic backwoodsmen have been the curse of genius from Aristarchus to Darwin and Freud; they stretch, a solid and hostile phalanx of pedantic mediocrities, across the centuries." Arthur Koestler, *the Sleepwalkers*, Hutchinson of London, 1969. *The Parting of the Ways, the Burden of Proof, Galileo's Triumph*, Page 427.*

Strategy

CMMI seeks to invest its resources so as to maximize its return to the academic community and society. In doing so, CMMI will follow these guidelines:

- Sustain strong support in areas of research that form the base from which significant advances emerge.
- Provide an environment that encourages innovation, particularly an environment that accepts risky and highly innovative proposals from knowledgeable and credible PIs.
- Balance funding for research against funding for equipment and facilities that enable frontier research in key research areas CMMI has determined to be important.
- Keep out-year commitments low and controlled funds to assure flexibility in the selection of year-to-year priorities.
- Promote high quality through strategic use of both external and internal merit review, and through the judicious management of programs. Such management includes consolidating or eliminating programs when needed, creating new programs, or shifting CMMI research emphases.
- Assure clarity and transparency through standardization across the division and adoption of best practices. Best practices include automatic return without review of proposals that fail to meet the Grant Proposal Guide requirements
- Assure effective use of research funds through periodic assessments, both internal and external, and through frequent workshops that set program agenda and priorities that complement extant opportunities, national needs and the priorities of the research communities.

- Provide both participation in and leadership of ENG- and NSF-wide initiatives in key areas of interest to the division.
- Seek to leverage division resources by collaborating with other federal and non-federal agencies.

Indicators

The following are indicators that provide insight into how well CMMI is accomplishing its objectives. The use of objective or numerical metrics is avoided as the real goal is to foster high quality, and that is not measured numerically. The objective is not to maximize any of these indicators, but rather to achieve a balance among them.

- Agenda-setting workshops conducted
- Proposal-writing workshops conducted
- REU/RET supplements given
- Adherence to the Government Performance and Results Act (GPRA) requirement for 70% of all proposals to be processed within 6 months.
- Avoidance of conflicts-of-interest
- Diversity of reviewers
- Program and research area assessments
- Representation of diverse demographic groups in awardees
- COV assessment
- Student involvement
- External assessments conducted, for example, by WTEC and the National Academy of Engineering
- Major honors received by awardees
- Major honors received by CMMI staff